

**Larson Engineering, Inc.**  
3524 Labore Road  
White Bear Lake, MN 55110-5128  
651.481.9120 Fax: 651.481.9201  
www.larsonengr.com



August 7, 2012

Patty  
Greater Frogtown Development CDC  
533 Dale Street North  
St. Paul, MN 55103

Re: General Home Inspection  
1185 Burr Street  
St. Paul, MN  
LEMN Project No: 11120796.000

Dear Patty,

I inspected the home at the above address. The home is a 2 story with the upper level and lower level being used as a duplex. The main level floor framing and basement level are in need of repair and reinforcing. Once the repairs are made, the home will be structurally sound.

The upper level appeared to have fairly level floors. There was indication of leaking from the roof, which appeared to crack the sheetrock, but there wasn't a lot of other cracking visible in the walls or ceiling at the upper level.

The main level showed evidence of sways in the floor. I will address the framing in the basement in the next portion. The floors felt solid and the bows in the floors followed the framing problems in the basement. The walls did not show excessive cracking.

The basement walls are a combination of limestone and masonry block. Apparently some portions of the lower level walls have been replaced at some point in time. The walls appeared to be in good shape. The basement was divided into 2 rooms. The first room is an all limestone foundation. The framing for the floors was cut up by the mechanical systems. Since this would not be a finished space, the floor could be shored up by adding several feet of walls in critical areas where the floor framing has been cut. The second room in the basement has had additional shoring added. Some of the columns that are existing will require footings to be added on top of the slab. This space would never be usable so the exposed footings would be acceptable. An opening was cut into the wall between the two rooms and no header installed. This needs to have a header installed as soon as work starts as it is dangerous condition as it is now. There is a portion by the furnace where the existing floor framing is sagging. An additional column is required in this area, with a footing, to help support the existing load. There is a possibility that another column and beam line may have to be installed near the far end of the basement. This would break the existing joist span in half on the far side of the second room. The existing joists

August 7, 2012

and beams will all need to be measured to determine if they are adequate and determine what repairs are necessary.

Another inspection will be required to measure all framing sizes and layout before our analysis can be completed. Please contact me when the final decision is made as to the feasibility of this project and we can schedule another inspection to draw up a basement support plan. This will detail the footings and other wood members that will be required. Please let me know if you have any additional questions or concerns.

Sincerely,  
Larson Engineering, Inc.



Carol Ous  
Senior Structural Engineer  
MN license #25385

<p style="text-align: center;"><b>Neighborhood Energy Connection</b></p> <p style="text-align: center;"><b>Residential Energy Specification</b></p>			<p>Customer: City of Saint Paul</p> <p>Address: 1185 Burr St</p> <p>Auditor: Michael Childs</p> <p>Phone: 651-221-4462 x145</p>
Spec ID#	Spec Title	Specification	Location / Notes
104	Replace Furnace with 95% AFUE, Multi-stage, Forced Air Furnace	Remove existing furnace, recycle all metal components and dispose of all other materials in a code legal dump. Install a new ENERGY STAR rated, gas-fired, multi-stage burner, forced air furnace with a minimum AFUE rating of 95%+ and ECM Motor with 2" rise above floor. Connect to existing duct work and gas line. New furnace to be vented with PVC piping per manufacturer's specifications. New furnace will have minimum limited warranties of 20 years on heat exchangers; 5 years on parts. Include auto set back thermostat controls, vent pipe & new shut-off valve. Rework cold air return if necessary to ensure easy access, good fit & easy replacement of air filter. An exterior return air filter box shall be installed on one side, both sides or bottom of new furnace. Seal all exposed duct joints with duct mastic. Remove all existing cloth duct tape prior to installing mastic.	<b>Option 2.</b>
106	Replace Furnace and Water Heater with a combined space and water heating system for forced air	Install a 95%+ condensing water heater with a hydronic air handler sized to meet load of the house for space and water heating. Consult NEC for more details if needed.	<b>Option 1.</b>

304	Replace Water Heater with Power Vented .67	Replace water heater with a power-vented water heater with an EF of .67. Include pressure & temperature release valve, discharge tube to within 6" of floor and PVC flue to power vent to exterior.	<b>Option 2.</b>
310	Install Central Air Conditioning Unit	Install 16 SEER split system central air conditioning unit, following local building code. Using OEM performance information and industry-approved procedures, confirm that the selected equipment satisfies/meets the load requirements at the system design conditions.	<b>No AC existing.</b>
500	Seal Attic Bypasses	Contractor shall seal all attic bypasses. Bypasses shall be defined as any break in the envelope of a house between a heated living space and an unheated area or exterior. Bypass locations include, but are not limited to, the following areas: chimneys, soil stacks, end walls, dropped ceilings, open plumbing walls and around duct work, electrical work and attic access points. Bypasses shall be sealed in such a manner that the movement of air through the bypass is essentially stopped. "Essentially stopped" means that air leakage will not be detected by an infrared scan when the house is pressurized to 30 Pascals. Materials to be used for sealing bypasses depend on the size and location of the bypass and meet code requirements. These materials include high quality caulks (20-year life span), polyethylene rod stock, foam, sheetrock, sheet metal, extruded polystyrene and densely packed insulation.	
510	Blow Open Attic to R-50	All bypasses shall be sealed before insulating in such a manner that the movement of air through the bypass is essentially stopped. Blow insulation to depth indicated on manufacturer's coverage chart, consistently and evenly to R-50. Insulation in the peak attic must be marked with a ruler to measure depth and a sign with the number of bags used and the date of the installation.	



530	Install Air Chutes	When soffit vents are installed or existing, a passage for air movement shall be cleared before insulating. Baffles or chutes shall be installed to maintain the passage of free air. Attic areas below the baffle or chute shall be insulated to R-50 or to capacity as space allows.	
532	Build Dam, insulate and weather strip attic hatch	Access hatch door to attic shall be insulated to R-44 and insulation dam constructed around opening. Opening shall be weather stripped to provide a tight seal.	
610	Wall insulation - Exterior Application: Remove Vinyl Siding, Drill, Dense Pack, Plug and Replace Siding	Siding shall be removed before drilling access holes. Determine cavities are free of hazards and can support dense packing pressures, locate drilling hazards, control dust when drilling from interior. Completely fill each cavity to a consistent density. Dense pack cellulose to a minimum density of 3.5 lbs./ft <sup>3</sup> or dense pack spider fiberglass per manufacturer's instructions. Siding must be replaced without damage and nailed back with appropriate galvanized nails. Follow all applicable Lead Safe Work Practices as per the EPA's RRP Rules.	Wall insulation method depends on extent of wall rehab.
618	Wall insulation - Interior Application: Fiberglass batt open cavities	Fit batt insulation between studs so that it fills the wall cavity without any gaps, voids, or compression. Call the NEC before sheet rocking.	Wall insulation method depends on extent of wall rehab.
620	Wall insulation - Interior Application: Spray foam open cavities	Follow manufacturer's instructions to completely and evenly fill the cavity. Call the NEC for inspection before sheet rocking.	Wall insulation method depends on extent of wall rehab.
804	Air Seal and Insulate Rim Joist using rigid foam	Seal cracks and holes in rim joist before insulating. Caulk or foam 3 inches of rigid insulation in place.	Option 2.

806	Air Seal and Insulate Rim Joist using two-part foam	Apply two-part foam evenly and consistently according to manufacturer's instructions to insulate to R-10 around basement rim joist.	<b>Option 1.</b>
1000	Install ENERGY STAR Rated Kitchen Fan	Install an ENERGY STAR rated exhaust fan connected with insulated rigid ductwork into a dampered vent.	
1010	Install ENERGY STAR Rated 2-stage Bathroom Fan	Install an ENERGY STAR rated two-speed bathroom fan .8 sones or less, with a pre-set low-speed of 10-30 CFM and a high-speed boost capability of 70-110 CFM initiated by a wall switch or motion detector. Vent bathroom fan using rigid duct and insulated with fiberglass and vented out with dampered roof vent.	
1200	Replace incandescents with CFLs	Replace incandescent bulbs with ENERGY STAR rated compact fluorescent lights. Install fixtures that meet the lighting needs of the particular area.	
1210	Install ENERGY STAR Rated Washing Machine	Connect new ENERGY STAR rated clothes washer sized appropriately for the household. Use braided steel water supply lines and a smooth rubber drain line connected to a 2 inch drain with trap. Remove existing washer, recycle all metal components and dispose of all other materials in a code legal dump.	
1212	Install ENERGY STAR Rated Dishwasher	Install ENERGY STAR rated dishwasher including all alterations and connections to plumbing and electric system. Remove existing dishwasher, recycle all metal components and dispose of all other materials in a code legal dump.	
1214	Install ENERGY STAR Rated Refrigerator	Install ENERGY STAR rated refrigerator sized appropriately for the household. Remove existing refrigerator, recycle all metal components and dispose of all other materials in a code legal dump.	

## Online Test Results

Test Number:

Test Number: **6102514** Result: **0.7 pCi/l**

- This test was received for analysis on **03/17/2012**
  - The total exposure time was **118 hours**
  - Starting on **03/07/2012** at **9:00 am**
  - Ending on **03/12/2012** at **8:00 am**
- 

### EPA Recommendations

The US EPA action level for indoor radon is 4.0 pCi/L. The EPA indicates that there is little shown in this range (0.6 to 1.9 pCi/L). However, because radon levels fluctuate daily, as well as seasonal, retest during another season. Additionally, if you make any structural changes or start to use radon more frequently, you should test again.

[Click here for EPA Radon Publications](#)

---

### Printed Reports?

Your formal written report is being mailed to the address entered into our computer when the test was purchased...OR...to the address that may have been printed on the sample packet by the end of the test.

You may use your Browser's print function to print out this abbreviated report or you have the option to request a faxed copy. Additionally, you may [click this link](#) to send your request card to our office.

[Click here to contact your state radon office](#)



## **Asbestos Abatement Associates**

*3125 Logan Ave. N., Minneapolis, MN 55411*

### **Project Description** **1185 Burr St., St. Paul, MN**

Asbestos Abatement Associates was retained by Cindy Carlson of the City of St. Paul to conduct an Asbestos/Hazardous Materials Survey for a residential home located at 1185 Burr St., St. Paul, MN. We were asked to prepare this report (the Survey) and report the findings of the Survey.

The reason for the visit is to identify friable and non-friable asbestos containing materials which may become friable during renovation or demolition.

The home is approximately 113 years old. It has 3 levels and is approximately 2,604 sq. ft. The structure is made of concrete footing and brick foundation with concrete flooring throughout the basement. It is wood framed; wood sided with vinyl siding exterior. There are hardwood floors throughout. The walls and ceilings are plaster and sheetrock. The attic is insulated with cellulose. This home has an asphalt shingle roof. There is a 26x26 garage that is wood sided and wood framed with vinyl siding exterior and it has an asphalt roof. It is on a concrete slab. There is a total of 210 sq. ft. of assumed to contain Asbestos paper found on the heat vents and duct work throughout the house.

This Survey represented by Jacob Martin on January 24, 2012. The Survey Area consisted of accessible portions of the Building at the time of the Survey.

Copies of Mr. Martin's Asbestos Inspector certificate and license are included.

*North Metro: 612-588-7755  
St. Paul: 651-633-4060*

*South Metro: 612-823-2955  
Fax: 612-588-6780*

*Email: [abateuow@a pops.net](mailto:abateuow@a pops.net)*



## **Asbestos Abatement Associates**

*3125 Logan Ave. N., Minneapolis, MN 55411*

### **Scope of Services 1185 Burr St., St. Paul, MN**

- A destructive assessment of accessible portions of the building was conducted Jacob Martin, Asbestos Building Inspector #9050. Suspect Asbestos containing building materials were identified per current Minnesota Department of Health (MDH) Asbestos Abatement Rules and Occupational Safety and Health Administration (OSHA) regulations.
- Samples of suspect ACM identified during the Survey were collected for laboratory analysis in accordance with MDH and OSHA regulations.
- The location, estimated quantity, and condition of suspect ACM were documented.
- The presence and or quantity of other materials such as hazardous wastes or building materials that would be classified as special wastes for demolition were documented.
- The presence and or quantity of equipment that could contain polychlorinated biphenyls (PCBs), ozone depleting chemicals (ODCs), and mercury or other regulated metals was documented.

*North Metro: 612-588-7755  
St. Paul: 651-633-4960*

*South Metro: 612-823-2955  
Fax: 612-588-6780*

*Email: [abatenow@popp.net](mailto:abatenow@popp.net)*



## **Asbestos Abatement Associates**

*3125 Logan Ave. N., Minneapolis, MN 55411*

**Sampling Methodology**  
**1185 Burr St., St. Paul, MN**

- Asbestos Abatement Associates identified homogenous building materials in accordance with the Environmental Protection Agency (EPA) Asbestos Hazardous Emergency Response Act (AHERA) 40 CFR Part 763, Subpart E as specified in MDH and OSHA rules and regulations. Homogenous areas are defined as areas of surfacing materials; thermal system insulation materials or other miscellaneous materials which upon examination for properties such as age, color, size and texture appear to be composed of the same material.
- The building materials are collected from randomly selected locations throughout the building where the material is found to be present. Samples of these materials are assumed to be representative of that material wherever it is found throughout the building.
- Samples of potential ACMs were collected by Asbestos Abatement Associates and were analyzed using Polarized Light Microscopy (PLM) by Carolina Environmental, Inc., in Cary, NC. NVLAP's National Voluntary Laboratory Accreditation Program code number is 10768-0. (Copy of Lab Qualification Included) The MDH, OSHA, and EPA define ACM as a material which contains greater than one percent asbestos by qualitative or quantitative analysis

*North Metro: 612-588-7755  
St. Paul: 651-633-4060*

*South Metro: 612-823-2955  
Fax: 612-588-6780*

*Email: [abatenow@popp.net](mailto:abatenow@popp.net)*





## **Asbestos Abatement Associates**

*3125 Logan Ave. N., Minneapolis, MN 55411*

**1185 Burr St., St. Paul, MN**

techniques. The EPA's National Emission Standard for Hazardous Air Pollutants (NESHAP) requires quantitative analysis, commonly referred to as a "point count", for all qualitative analysis results when asbestos is detected in concentrations less than one to ten percent. However, under common practice, qualitative results greater than three and less than ten percent are often accepted to be ACM.

### **Testing Results**

Asbestos Abatement Associates collected a total of twenty (20) samples of suspect (ACM) that were analyzed by Carolina Environmental, Inc.

See Survey/Sample Results in table on the next pages with the sample results in the page following.

*North Metro: 612-588-7755  
St. Paul: 651-633-4060*

*South Metro: 612-823-2955  
Fax: 612-588-6780*

*Email: [abatenow@popp.net](mailto:abatenow@popp.net)*





## **Asbestos Abatement Associates**

*3125 Logan Ave. N., Minneapolis, MN 55411*

### **Sample Results 1185 Burr St., St. Paul, MN**

**Sample #2** is the 2<sup>nd</sup> layer of flooring tan in kitchen apt. #2 and was found to contain 2% Chrysotile Asbestos containing material and must be removed by a State Licensed Asbestos Contractor with the estimated cost for removal \$1,050.00.

**Sample #5** is floor tile wood grain design in dining room apt. #2 and was found to contain 2% Chrysotile Asbestos containing material and must be removed by a State Licensed Asbestos Contractor with the estimated cost for removal \$250.00.

**Sample #8** is ivory floor tile in the stairwell apt. #2 and was found to contain 2% Chrysotile Asbestos containing material and must be removed by a State Licensed Asbestos Contractor with the estimated cost for removal \$650.00.

#### **Assumed to Contain Items are Listed as Follows:**

- Paper on heat vents apartment #2 with estimated cost for removal \$2,235.00
- Paper on heat vents apartment #1 with estimated cost for removal \$1,235.00
- Paper on ductwork in the basement with estimated cost for removal \$835.00

*North Metro: 612-588-7755  
St. Paul: 651-633-4060*

*South Metro: 612-823-2955  
Fax: 612-588-6780*

*Email: abatenow@popp.net*

All other items tested were found to be non-asbestos containing listed as follows:

**Apartment #2:**

- Top layer sheet flooring in kitchen but must removed due to 2<sup>nd</sup> layer contains 15x13
- 3<sup>rd</sup> layer brown flooring in kitchen 15x13
- White window glazing bedroom #1 10 total
- Black mastic in dining room under floor tile 13x1 strip
- White sink under coating kitchen 1 sink
- Black mastic under floor tiles in stairwell 8x7

**Apartment #1:**

- Sheet flooring only tan bathroom 7x6
- Floor tile ivory w/grey design kitchen 15x13
- Black mastic under kitchen flooring 15x13
- Light brown ceiling texture bedroom #2 13x10
- White ceiling texture bedroom #1 13x8
- Light brown ceiling texture living room 15x13
- White ceiling texture hallway 14x5
- White ceiling texture living room 15x13
- White ceiling texture bedroom #2 13x10
- Sheet flooring tans kitchen closet 4x3
- Brown window glazing kitchen 1 total

### **Hazardous Waste Items Found On Site**

- 1 fuel oil tank
- 2 refrigerators
- 2 smoke detectors
- 2 stoves
- 1 thermostat
- 2 water heaters

The estimated cost for removal of Hazardous Waste items is \$650.00 not including the fuel oil tank.

**Fuel oil tanks list can be removed by Dean's Tank by contacting them at: 763-535-0194**





CAROLINA  
ENVIRONMENTAL, INC.

ASBESTOS BULK INSPECTION

3/15/13

7/2/13

10:00

11/1/13

CHOCOLATE

10	Staircase	White	Bedroom 7x11
11	Staircase	White	Bedroom 15x13
12	Staircase	White	Bedroom 15x13
13	Staircase	White	Bedroom 15x13
14	Staircase	White	Bedroom 15x13
15	Staircase	White	Bedroom 15x13
16	Staircase	White	Bedroom 15x13
17	Staircase	White	Bedroom 15x13
18	Staircase	White	Bedroom 15x13
19	Staircase	White	Bedroom 15x13
20	Staircase	White	Bedroom 15x13

OF WORKING ON TRAIL

1/1/14



CEI Labs  
107 New Edition Court, Cary, NC 27511  
Phone: (919) 481-1413 Fax: (919) 481-1442

## LABORATORY REPORT ASBESTOS BULK ANALYSIS

Client: **Asbestos Abatement Associates**  
3125 Logan Ave. N  
Minneapolis, MN 55411

CEI Lab Code: A12-0479  
Received: 01-19-12  
Analyzed: 01-20-12  
Reported: 01-20-12  
Analyst: Megan Brooks

Project: City of St. Paul, 1185 Burr St

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	ASBESTOS	
1	A1242169	<u>SHEET FLOORING</u> Heterogeneous Gray White Fibrous Bound	ND	
		<div> <div>BNP</div> <div>30%</div> </div> <div> <div>CELL</div> <div>25%</div> </div> <div> <div>VINYL</div> <div>30%</div> </div> <div> <div>FBG</div> <div>10%</div> </div> <div> <div>MAST</div> <div>5%</div> </div>		
2	A1242170A	<u>FLOOR TILE</u> Heterogeneous White Non-fibrous Bound	CHRY	2%
		<div> <div>BNP</div> <div>30%</div> </div> <div> <div>CELL</div> <div>67%</div> </div> <div> <div>CACTO</div> <div>3%</div> </div>		
	A1242170B	<u>MASTIC</u> Heterogeneous Black Non-fibrous Bound	ND	
		<div> <div>TAR</div> <div>95%</div> </div> <div> <div>CELL</div> <div>5%</div> </div>		
3	A1242171	<u>SHEET FLOORING</u> Heterogeneous Brown Fibrous Bound	ND	
		<div> <div>TAR</div> <div>30%</div> </div> <div> <div>CELL</div> <div>40%</div> </div> <div> <div>VINYL</div> <div>30%</div> </div>		
4	A1242172	<u>WINDOW GLAZING</u> Heterogeneous White Non-fibrous Bound	ND	
		<div> <div>BNP</div> <div>95%</div> </div> <div> <div>PAINT</div> <div>5%</div> </div>		
5	A1242173	<u>FLOOR TILE</u> Heterogeneous Tan Non-fibrous Bound	CHRY	2%
		<div> <div>BNP</div> <div>50%</div> </div> <div> <div>VINYL</div> <div>50%</div> </div> <div> <div>CACTO</div> <div>18%</div> </div>		

CEI Labs  
107 New Edition Court, Cary, NC 27511  
Phone: 919-481-1413 Fax: 919-481-1442

Project: City of St. Paul: 1185 Burr St.

Lab Code: A12-0479

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION						% ASBESTOS
6	A1242174	<u>MASTIC</u> Heterogeneous,	Black, Non-fibrous, Bound	TAR	95 %	CELL	5 %	ND
7	A1242175	<u>SINK UNDERCOATING</u> Heterogeneous,	White, Fibrous, Bound	BIND	70 %	CELL	30 %	ND
8	A1242176	<u>FLOOR TILE</u> Heterogeneous,	Tan, Non-fibrous, Bound	CHRY	2 %	VINYL	60 %	CHRY 2 %
				CACO	38 %			
9	A1242177	<u>MASTIC</u> Heterogeneous,	Black, Non-fibrous, Bound	TAR	95 %	CELL	5 %	ND
10	A1242178	<u>SHEET FLOORING</u> Heterogeneous,	Tan, Fibrous, Bound	BIND	30 %	CELL	25 %	ND
				VINYL	30 %	FBGL	10 %	
				MAST	5 %			
11	A1242179	<u>FLOOR TILE</u> Heterogeneous,	Tan, Grey, Non-fibrous, Bound	VINYL	60 %			ND
				CACO	40 %			
12	A1242180	<u>MASTIC</u> Heterogeneous,	Clear, Non-fibrous, Bound	MAST	95 %	CELL	5 %	ND



CEI Labs  
107 New Edition Court, Cary, NC 27511  
Phone: 919-481-1413 Fax: 919-481-1442

Project: City of St. Paul: 1185 Burr St.

Lab Code: A12-0479

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
13	A1242181	<u>CEILING TILE</u> Heterogeneous, White, Tan, Fibrous, Loosely Bound	ND
		BIND 5 % CELL 60 % PAINT 5 % FBGL 20 % PERL 10 %	
14	A1242182	<u>CEILING TEXTURE</u> Heterogeneous, White, Non-fibrous, Bound	ND
		BIND 60 % PAINT 10 % VER 30 %	
15	A1242183	<u>CEILING TILE</u> Heterogeneous, White, Tan, Fibrous, Loosely Bound	ND
		BIND 5 % CELL 60 % PAINT 5 % FBGL 20 % PERL 10 %	
16	A1242184	<u>CEILING TEXTURE</u> Heterogeneous, White, Non-fibrous, Bound	ND
		BIND 60 % PAINT 10 % VER 30 %	
17	A1242185	<u>CEILING TEXTURE</u> Heterogeneous, White, Non-fibrous, Bound	ND
		BIND 60 % PAINT 10 % VER 30 %	
18	A1242186	<u>CEILING TEXTURE</u> Heterogeneous, White, Non-fibrous, Bound	ND
		BIND 60 % PAINT 10 % VER 30 %	
19	A1242187	<u>SHEET FLOORING</u> Heterogeneous, Tan, Fibrous, Bound	ND
		BIND 30 % CELL 25 % VINYL 30 % SYNT 15 %	

CEI Labs  
107 New Edition Court, Cary, NC 27511  
Phone: 919-481-1413 Fax: 919-481-1442

Project: City of St. Paul 1185 Burr St.

Lab Code: A12-0479

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
20	A1242188	<u>WINDOW GLAZING</u> Heterogeneous, White, Non-fibrous, Bound	ND
		BIND 95 %	
		PAINT 5 %	

The following definitions apply to the abbreviations used in the ASBESTOS  
BULK ANALYSIS REPORT:

CHRY = Chrysotile	CELL = Cellulose	DEBR = Debris
AMOS = Amosite	FBGL = Fibrous Glass	BIND = Binder
CROC = Crocidolite	CACO = Calcium Carbonate	SILI = Silicates
TREM = Tremolite	SYNT = Synthetics	GRAV = Gravel
ANTH = Anthophyllite	WOLL = Wollastonite	MAST = Mastic
ACTN = Actinolite	CERWL = Ceramic Wool	PLAS = Plaster
N D = None Detected	NTREM = Non-Asbestiform Tremolite	PERL = Perlite
NANTH = Non-Asbestiform Anthophyllite	FBGY = Fibrous Gypsum	RUBR = Rubber
		VER = Vermiculite

CLIENT: Asbestos Abatement Associates

PROJECT: City of St. Paul: 1185 Burr St.

CEI LAB CODE: A12-0479

Stereoscopic microscopy and polarized light microscopy coupled with dispersion staining is the analytical technique used for sample identification. The percentage of each component is visually estimated by volume. These results pertain only to the samples analyzed. The samples were analyzed as submitted by the client and may not be representative of the larger material in question. Unless notified in writing to return samples, CEI Labs will discard all bulk samples after 30 days.

Many vinyl floor tiles have been manufactured using greater than 1% asbestos. Often the asbestos was milled to a fiber size below the detection limit of polarized light microscopy. Therefore, a "None Detected" (ND) reading on vinyl floor tile does not necessarily exclude the presence of asbestos. Transmission electron microscopy provides a more conclusive form of analysis for vinyl floor tiles.

It is certified by the signature below that CEI Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for the analysis of asbestos in bulk materials. The accredited test method is EPA / 600 / M4-82 / 020 for the analysis of asbestos in building materials. Procedures described in EPA / 600 / R-93 / 116 have been incorporated where applicable. The detection limit for the method is 0.1% (trace amount). CEI Labs's NVLAP accreditation number is #101768-0. This report is not to be used to claim product endorsement by NVLAP or any agency of the U. S. Government. This report and its contents are only valid when reproduced in full. Dust and soil analyses for asbestos using PLM are not covered under NVLAP accreditation.

ANALYST

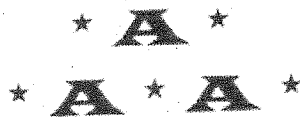


REVIEWED BY



Tianbao Bai, Ph.D.  
Laboratory Director

End of Report



## **Asbestos Abatement Associates**

*3125 Logan Ave. N., Minneapolis, MN 55412*

The structure is ready to be demolished only after the Friable Asbestos containing items are removed by an Asbestos contractor. The non-friable Asbestos can remain in place for demolition but you must make the landfill aware the debris has non-friable class nine materials mixed in. Non Friable Asbestos containing materials are subject to the MPCA rules and notifications.

All hazardous materials need to be managed properly and removed prior to demolition. The following is a sample of hazardous building materials:

- Polychlorinated Biphenyls (PCBS) found in light ballasts, capacitors, HVAC systems, and transformers.
- Mercury found in fluorescent lamps, switches, vapor lamps, thermostats, metal halide lamps, high pressure sodium lamps, neon lamps, manometers, and gauges. Many mercury containing materials were used in appliances, HVAC systems, or industrial switches or controls, thermocouples, temperature sensors, and other electrical equipment.
- Pb based paint that is not adhering to the substrate.
- Refrigerants/CFCs/HCFs are found in refrigerators, AC systems, drinking fountains, dehumidifiers, vending machines, heat pumps, chillers, freezers, ice machines, food display cases.
- Appliances including stoves, refrigerators, furnaces, air exchangers, water heaters, etc.
- Chemicals, oils, batteries, paint cans, agricultural chemicals, other hazardous building materials.
- Trash, furniture, mattresses, engine parts, construction waste, etc.

Sincerely,  
Jacob Martin

*North Metro: 612-588-7755  
St. Paul: 651-633-4060*

*South Metro: 612-823-2955  
Fax: 612-588-6780*

*Email: [abatenow@popp.net](mailto:abatenow@popp.net)*



## **Asbestos Abatement Associates**

*3125 Logan Ave. N., Minneapolis, MN 55411*

### **Sampling Area Measurements for Abatement 1185 Burr St., St. Paul, MN**

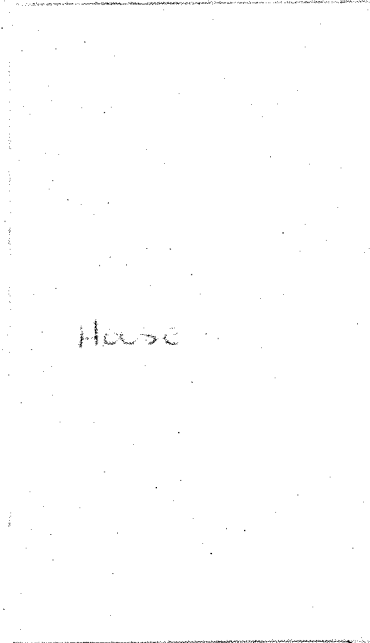
Sample #2 2 <sup>nd</sup> layer flooring tan in kitchen apt.#2	15x13
Sample #5 floor tile wood grain design dining room apt. #2	13x1 strip
Samples #8 floor tile ivory apt. #2 stairwell	8x7
Assumed: paper on heat vents Apt. #2	150 sq. ft.
Assumed: paper on heat vents apt. #1	40 sq. ft.
Assumed: duct work paper	20 sq. ft.

*North Metro: 612-588-7755  
St. Paul: 651-633-4060*

*South Metro: 612-823-2955  
Fax: 612-588-6780*

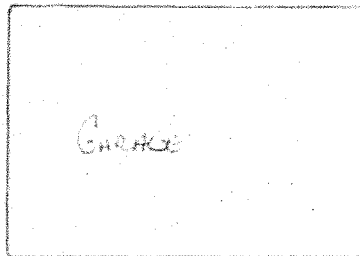
*Email: [abatenow@popp.net](mailto:abatenow@popp.net)*

30



House

50

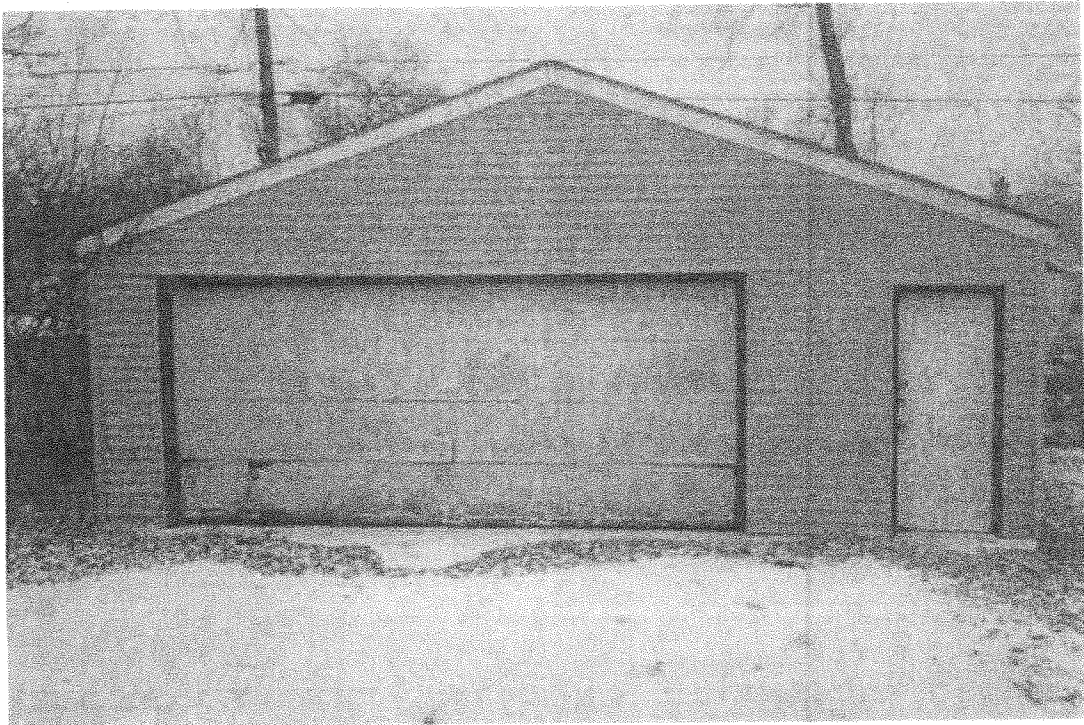
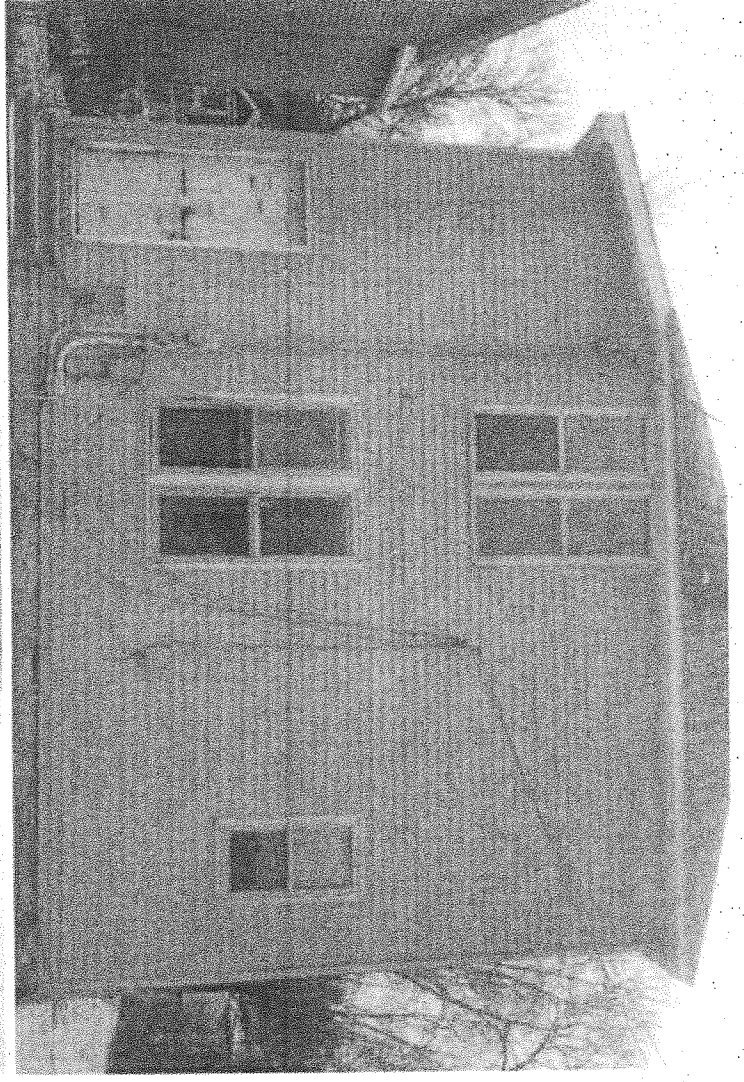
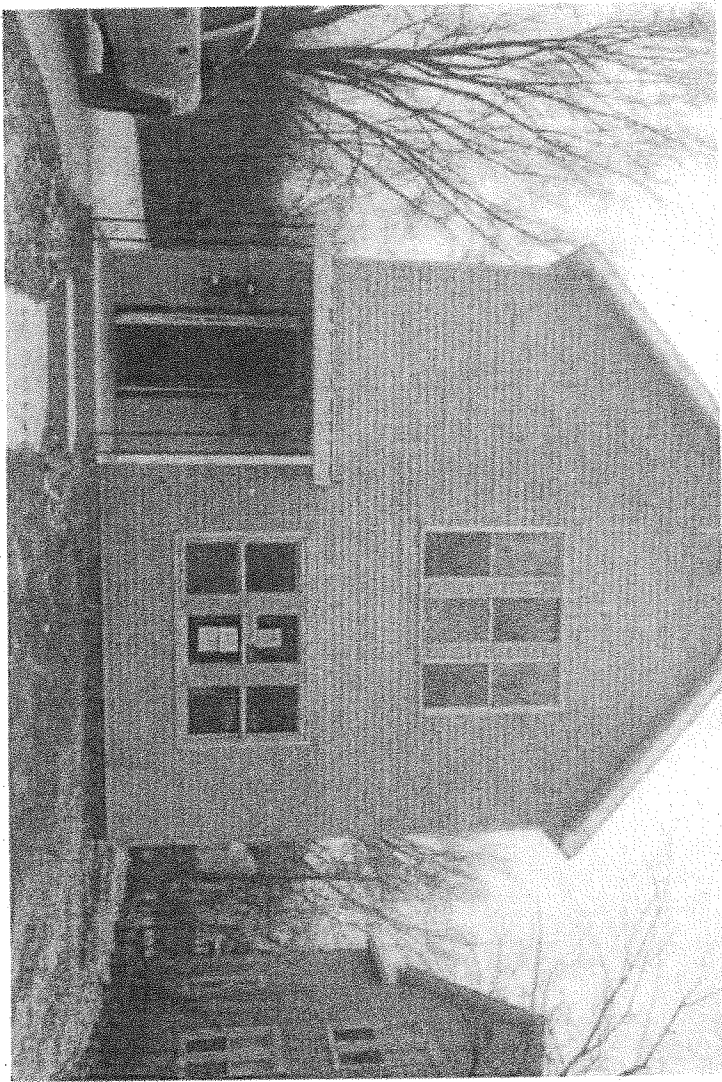


Garage

26

26







United States Department of Commerce  
National Institute of Standards and Technology



## Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101768-0

**Carolina Environmental, Inc.**  
Cary, NC

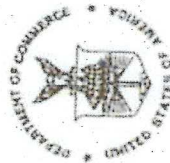
is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:

### BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2009-04-01 through 2010-03-31

Effective dates



*Dolly S. Bruce*  
For the National Institute of Standards and Technology



National Voluntary  
Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Carolina Environmental, Inc.

107 New Edition Court

Cary, NC 27511

Dr. Tianbao Bai

Phone: 919-481-1413 Fax: 919-481-1442

E-Mail: bai@ceilabs.com

URL: <http://www.ceilabs.com>

BULK ASBESTOS FIBER ANALYSIS (PLM)

NVLAP LAB CODE 101768-0

*NVLAP Code Designation / Description*

8A01

EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

2009-04-01 through 2010-03-31

*Effective dates*

*Dolly L. Bruce*

For the National Institute of Standards and Technology

Certificate No: 5LM08111101H

Expiration Date: August 11, 2012

This is to certify that

**Jacob Martin Sr.**

has attended and successfully completed an

**ASBESTOS INSPECTOR  
INITIAL TRAINING COURSE**

permitted by

the State of Minnesota under Minnesota Rules 4620.3702 to 4620.3722

and meets the requirements of

Section 206 of Title II of the Toxic Substances Control Act (TSCA)  
conducted by

**Lake States Environmental, Ltd.**

**White Bear Lake, MN on August 9 - 11, 2011**

**Examination Date: August 11, 2011**

Lake States Environmental, Ltd.  
P. O. Box 645, Rice Lake, WI 54868  
(800) 254-9811

*Robert R. Flanagan*  
Training Instructor



ASBESTOS  
INSPECTOR

Certified by:  
State of Minnesota  
Department of Health

**Expires: 08/11/2012**

Jacob M Martin  
1933 Glenwood Pkwy  
Golden Valley, MN 55422

*Frank J. Berman*  
Director, Env. Health Div

No. A19050

Issued: 09/09/2011



# Home Energy Rating Certificate

1185 Burr St  
St Paul, MN 55106



**5 Stars Plus  
Confirmed**

## Uniform Energy Rating System

1 Star	1 Star Plus	2 Stars	2 Stars Plus	3 Stars	3 Stars Plus	4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
500-401	400-301	300-251	250-201	200-151	150-101	100-91	90-86	85-71	70 or Less

HERS Index: **70**

## General Information

Conditioned Area: 2856 sq. ft.  
Conditioned Volume: 24108 cubic ft.  
Bedrooms: 3

## Energy Efficient

4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
100-91	90-86	85-71	70 or Less

House Type: Single-family detached  
Foundation: Conditioned basement

## Mechanical Systems Features

Heating: Fuel-fired hydronic distribution, Natural gas, 95.0 AFUE.  
Cooling: Air conditioner, Electric, 16.0 SEER.  
Water Heating: Conventional, Natural gas, 0.67 EF, 40.0 Gal.  
Duct Leakage to Outside: RESNET/HERS default  
Ventilation System: Exhaust Only: 60 cfm, 13.0 watts.  
Programmable Thermostat: Heating: Yes Cooling: Yes

## Building Shell Features

Ceiling Flat: R-50  
Vaulted Ceiling: NA  
Above Grade Walls: R-13  
Foundation Walls: R-0.0  
Slab: R-0.0 Edge, R-0.0 Under  
Exposed Floor: NA  
Window Type: NFRC .32 / .32  
Infiltration: Rate: Htg: 2485 Ctg: 2485 CFM50  
Method: Blower door test

## Lights and Appliance Features

Percent Interior Lighting: 90.00  
Percent Garage Lighting: 0.00  
Refrigerator (kWh/yr): 691.00  
Dishwasher Energy Factor: 0.46  
Range/Oven Fuel: Natural gas  
Clothes Dryer Fuel: Natural gas  
Clothes Dryer EF: 2.67  
Ceiling Fan (cfm/Watt): 0.00

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

**REM/Rate - Residential Energy Analysis and Rating Software v12.98**

This information does not constitute any warranty of energy cost or savings.

© 1985-2012 Architectural Energy Corporation, Boulder, Colorado.

Registry ID:  
Rating Number:  
Certified Energy Rater: Michael Childs  
Rating Date: 4/30/2012  
Rating Ordered For: City of Saint Paul

## Estimated Annual Energy Cost

Use	MMBtu	Cost	Percent
Heating	115.5	\$1046	51%
Cooling	1.6	\$48	2%
Hot Water	18.8	\$169	8%
Lights/Appliances	27.1	\$606	30%
Photovoltaics	-0.0	\$-0	-0%
Service Charges		\$180	9%
<b>Total</b>		<b>\$2049</b>	<b>100%</b>

This home meets or exceeds the minimum criteria for all of the following:

TITLE  
Company  
Address  
City, State, Zip  
Phone #  
Fax #



**Angstrom Analytical &  
Environmental Services**

5001 Cedar Lake Road \* St. Louis Park, MN 55416  
952-252-0405 952-252-0407 fax

---

January 25, 2012

Asbestos Abatement Associates  
3125 Logan Ave N  
Minneapolis, MN 55411  
612-588-7755

Owner:  
City of St. Paul  
15 Kellogg Blvd.  
St. Paul, MN 55102  
651-266-8989

**Lead-Based Paint Inspection**  
**1185 Burr Street St. Paul, MN**  
**Duplex**

This report provides the results of lead-based paint testing conducted on January 18, 2012 at 1185 Burr Street. The property is a multi-family residential property located in St. Paul, MN. The inspection was conducted by Kevin Hagen (MN Lic. No. LR 2036). Angstrom Analytical, Inc. was authorized by you to conduct an inspection for lead-based paint using a field portable x-ray fluorescence (XRF) analyzer. The purpose of this assessment was to determine if lead based paint exists at the above referenced property.

The property consists of a two story multi family home with a full basement. The basement is unfinished. There was a garage on the property. According to Zillow.com the property was built in 1899. For sample location purposes, side A of the building is the side facing Burr Street. and is lettered clockwise around the building. The exteriors consist of a vinyl siding with wood trim work, fascia, soffit and metal gutters, all with painted finishes. Building foundation is concrete. Bare soil was not observed around the property due to the snow cover. No soil samples were collected. At a minimum, the Minnesota Dept. of Health recommends bare soils be made intact by covering them over with either sod, landscaping stone or mulch.

The interior has been remodeled with most of the windows being painted, uniform in size and are of the double hung type. The cabinets in the bathrooms and kitchen are painted and the closed shelf components are unpainted.

**Results**

Results of XRF analysis are summarized in the following report (see Appendix A), which utilize Department of Housing and Urban Development (HUD) thresholds (see remarks) for lead-based

paint. Painted surfaces are rated on condition as Intact, Fair or Poor. Intact surfaces are free of visual damage/deterioration. Fair or poor rating indicates the paint is damaged and is deteriorated. Any condition listed as fair or poor is a deteriorated condition. The inspection was conducted using HUD "Guidelines for the Evaluation and Control of Lead Based Paint in Housing" using the October 1997 revised Chapter 7 protocols. The sampling criteria used are found in the HUD Standards 24 CFR Part 35 et al.

### **Methodology**

Testing was accomplished using a Niton XL 300 series. This instrument is a portable, non-destructive, in-site testing and measurement instrument that renders an average precision of +/- 0.3 milligrams per square centimeter ( $\text{mg}/\text{cm}^2$ ) depending upon the length of time the sample point is tested. The XRF uses a source of Cd-109. Specific precision limits are established by the National Institute of Standards and Technology (NIST). The XRF instrument was checked using the NIST Standard Reference for calibration checks. The instrument's operational mode is standard paint mode. This instrument is operated by Minnesota Department of Health licensed lead inspectors. Where conclusive results were not obtained by XRF testing, confirmatory paint chip samples were or can be collected for laboratory analysis. The XRF instrument was calibrated, using a known lead paint film, at the beginning, every four hours and at the end of each day.

### **Remarks**

The Lead-Based Paint Poisoning Prevention Act (LBPPA) has established an action level for public housing. Under the statute, lead-based paint hazards equal to or greater than  $1.0 \text{ mg}/\text{cm}^2$  or 0.5 percent by weight must be abated. It is important to keep in mind that the testing results of a component also apply to any similar component not tested. For example, if a white, painted baseboard tests positive then the entire white painted baseboard in that room is also considered positive.

All sampling was conducted by representatives of Angstrom Analytical, Inc. Standards for private or commercial housing may vary by locality.

### **Results**

The results of the portable x-ray fluorescence (XRF) analysis of the representative building components are listed in appendix A. All paint testing was conducted using the XRF unit. The XRF was calibrated and the beginning of each days inspection, during the inspection and at the end of each days inspection. Calibration was conducted on known lead paint films provided by the manufacturer. The results of the calibrations are within acceptable limits of the Performance Characteristic Sheet for the instrument. XRF results are expressed in units of milligrams per square centimeter ( $\text{mg}/\text{cm}^2$ ) (see Remarks for action levels). XRF results are classified as positive or negative. A component that tests positive indicates leads is present at or above the standard (see Remarks).



## **Discussion**

Painted building components were assessed visually for condition. Paint is rated on its condition as intact, fair and poor. Intact means good condition, Fair means less than two square feet of damage to a large interior surface or less than 10 square feet to a large exterior surface or less than 10% damage to a small surface area. Poor condition means greater than 2 square feet of damage on large interior surface, more than 10 square feet on a large exterior surface or more than 10% damage to a small surface area. Painted surfaces listed as in fair or poor condition are considered deteriorated. Based on our inspection findings, lead based paint was identified on the following:

- Window components
- Ceilings
- Cabinets
- Door components
- Stair stringers
- Baseboards
- Flooring
- Siding
- 

## **Lead Based Painted Components**

- The brown painted wood door components at the main entrance.
- The brown painted wood baseboard at the main entrance.
- The brown painted wood baseboards in the living room.
- The brown painted wood window trim in the living room.
- The brown painted door trim in the living room.
- The brown painted wood baseboard in the 1<sup>st</sup> floor hallway.
- The brown painted wood door trim in the 1<sup>st</sup> floor hallway.
- The green painted wood closet door in bedroom #1
- The brown painted wood closet door trim in bedroom #1
- The white painted plaster walls in the closet of the 1<sup>st</sup> floor bedroom #1
- The white painted wood baseboard in the closet of the 1<sup>st</sup> floor bedroom #1
- The brown painted wood window trim in the 1<sup>st</sup> floor bedroom #1
- The white painted wood window trim in the 1<sup>st</sup> floor bedroom #2
- The white painted wood baseboard in the 1<sup>st</sup> floor bedroom #2
- The brown painted wood chair rail in the 1<sup>st</sup> floor kitchen.
- The brown painted wood baseboard in the 1<sup>st</sup> floor kitchen.
- The brown painted wood window trim in the 1<sup>st</sup> floor kitchen.
- The brown painted wood door components in the 1<sup>st</sup> floor kitchen.

- The green painted drywall ceiling in the 1<sup>st</sup> floor kitchen.
- The brown painted wood cabinets in the 1<sup>st</sup> floor kitchen.
- The white painted wood cabinets in the 1<sup>st</sup> floor bathroom.
- The tan painted drywall interior cabinet in the 1<sup>st</sup> floor bathroom.
- The white painted drywall walls in the 1<sup>st</sup> floor bathroom.
- The brown painted wood wall trim in the 1<sup>st</sup> floor bathroom.
- The brown painted wood door components in the 1<sup>st</sup> floor bathroom.
- The white painted wood window trim in the 1<sup>st</sup> floor bathroom.
- The brown painted wood stair stringer at the front stair leading to the 2<sup>nd</sup> floor.
- The brown painted wood window components in the stairwell leading to the 2<sup>nd</sup> floor.
- The brown painted wood baseboard on the 2<sup>nd</sup> floor landing.
- The tan painted wood door components at the closet on the 2<sup>nd</sup> floor landing.
- The white painted wood window components in the 2<sup>nd</sup> floor front room.
- The white painted wood baseboard in the 2<sup>nd</sup> floor front room.
- The white painted wood baseboard in the 2<sup>nd</sup> floor front room closet.
- The brown painted wood baseboard in the 2<sup>nd</sup> floor living room closet.
- The white painted wood baseboard in the 2<sup>nd</sup> floor south room.
- The white painted wood window components in the 2<sup>nd</sup> floor south room.
- The white painted wood door trim in the 2<sup>nd</sup> floor south room.
- The white painted wood cabinets in the 2<sup>nd</sup> floor kitchen.
- The white painted wood baseboards in the 2<sup>nd</sup> floor kitchen.
- The white painted wood window components in the 2<sup>nd</sup> floor kitchen.
- The white painted plaster walls in the 2<sup>nd</sup> floor bathroom.
- The white painted wood baseboards in the 2<sup>nd</sup> floor bathroom.
- The white painted wood door trim in the 2<sup>nd</sup> floor bathroom.
- The gray painted wood floor in the 2<sup>nd</sup> floor back stairwell.
- The brown painted wood floor in the closet of the 2<sup>nd</sup> floor back stairwell.
- The brown painted stair treads leading to the basement.
- The pink painted cabinets in the basement.
- The beige colored vinyl siding on the exterior.
- The white painted metal soffits.
- The brown painted wood door components throughout exterior.
- The white painted metal clad window trim throughout exterior.

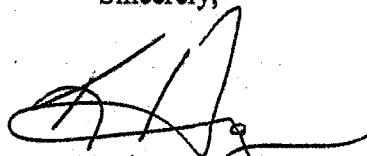
*Please refer to the Lead Based Paint Testing Report (Appendix A) for specific locations and conditions. At a minimum, surfaces in fair to poor condition need to be stabilized. Intact lead based paint surfaces are not considered a hazard. However they do need to be maintained in an intact condition and periodically monitored. Specific surfaces not identified in this report should be treated as lead based unless testing proves otherwise.*

## Recommendations

Angstrom Analytical recommends that lead related work be performed by trained individuals and follow all applicable regulations regarding lead and lead hazards. If you are using federal funding you are required to use qualified firms, knowledgeable in hazards associated with lead and are certified / licensed to perform lead remediation services. A copy of this report must be provided to purchasers/lessees on this property under Federal law, 24 CFR part 35 and 40 CFR part 745.

If you have any questions or need further assistance, please call us at the number above.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kevin Hagen', with a stylized flourish extending to the right.

Kevin Hagen  
Angstrom Analytical, Inc.

[illegible]

128	1/18/2012	13:41	WINDOW trim	WOOD	C	INTACT	BROWN	1185 BURR	FIRST	KITCHEN	Positive	13.3	5.2
129	1/18/2012	13:42	DOOR	WOOD	D	INTACT	BROWN	1185 BURR	FIRST	KITCHEN	Positive	13.9	5.6
130	1/18/2012	13:42	DOOR trim	WOOD	D	INTACT	BROWN	1185 BURR	FIRST	KITCHEN	Positive	14.3	4.8
131	1/18/2012	13:43	CEILING	DRYWALL		CRACKEL	GREEN	1185 BURR	FIRST	KITCHEN	Positive	24.6	7.5
132	1/18/2012	13:44	CABINET	WOOD	D	INTACT	TAN	1185 BURR	FIRST	KITCHEN	Negative < LOD		0.03
133	1/18/2012	13:44	CABINET	WOOD	B	INTACT	BROWN	1185 BURR	FIRST	KITCHEN	Positive	8.9	3.7
134	1/18/2012	13:45	CABINET	WOOD	A	INTACT	WHITE	1185 BURR	FIRST	BATHROOM	Positive	5.2	2.7
135	1/18/2012	13:46	CABINET interior	DRYWALL	A	CRACKEL	TAN	1185 BURR	FIRST	BATHROOM	Positive	3	1.5
136	1/18/2012	13:47	WALL	DRYWALL	A	CRACKEL	WHITE	1185 BURR	FIRST	BATHROOM	Positive	4.6	2.6
137	1/18/2012	13:47	WALL trim	WOOD	A	INTACT	BROWN	1185 BURR	FIRST	BATHROOM	Positive	10	4.8
138	1/18/2012	13:48	DOOR	WOOD	D	FAIR	BROWN	1185 BURR	FIRST	BATHROOM	Positive	14.8	5.6
139	1/18/2012	13:48	DOOR trim	WOOD	D	FAIR	BROWN	1185 BURR	FIRST	BATHROOM	Positive	21.1	7
140	1/18/2012	13:49	WINDOW	WOOD	B	INTACT	WHITE	1185 BURR	FIRST	BATHROOM	Negative < LOD		0.03
141	1/18/2012	13:49	WINDOW trim	WOOD	B	INTACT	WHITE	1185 BURR	FIRST	BATHROOM	Positive	16.9	6.1
142	1/18/2012	13:50	CEILING	DRYWALL		INTACT	WHITE	1185 BURR	FIRST	BATHROOM	Negative < LOD		0.17
143	1/18/2012	13:52	stringer	WOOD	B	INTACT	BROWN	1185 BURR	SECOND	front str	Positive	9.1	4.2
144	1/18/2012	13:52	hand rail	WOOD	B	INTACT	BROWN	1185 BURR	SECOND	front str	Negative < LOD		0.05
145	1/18/2012	13:53	WINDOW	WOOD	B	INTACT	BROWN	1185 BURR	SECOND	front str	Positive < LOD		9
146	1/18/2012	13:53	WINDOW trim	WOOD	B	INTACT	BROWN	1185 BURR	SECOND	front str	Positive	8.7	4.3
147	1/18/2012	13:54	WALL	DRYWALL	B	INTACT	WHITE	1185 BURR	SECOND	front str	Negative < LOD		0.04
148	1/18/2012	13:54	CEILING	DRYWALL		INTACT	WHITE	1185 BURR	SECOND	front str	Negative < LOD		0.03
149	1/18/2012	13:55	BASEBOARD	WOOD	C	INTACT	BROWN	1185 BURR	SECOND	front str	Positive	9.6	4.6
150	1/18/2012	13:56	closet floor	WOOD		PEELING	BROWN	1185 BURR	SECOND	front str	Negative < LOD		0.17
151	1/18/2012	13:57	closet door	WOOD	A	INTACT	TAN	1185 BURR	SECOND	front str	Positive < LOD		10.05
152	1/18/2012	13:57	closet door trim	WOOD	A	INTACT	TAN	1185 BURR	SECOND	front str	Positive < LOD		9.9
153	1/18/2012	13:58	closet wall	PLASTER	A	CRACKEL	WHITE	1185 BURR	SECOND	front str	Negative	0.22	0.14
154	1/18/2012	13:58	closet ceiling	PLASTER	A	CRACKEL	WHITE	1185 BURR	SECOND	front str	Negative	0.23	0.12
155	1/18/2012	14:00	WALL	PLASTER	A	INTACT	WHITE	1185 BURR	SECOND	front room	Negative < LOD		0.28
156	1/18/2012	14:01	CEILING	PLASTER		INTACT	WHITE	1185 BURR	SECOND	front room	Negative < LOD		0.14
157	1/18/2012	14:02	WINDOW	WOOD	A	INTACT	WHITE	1185 BURR	SECOND	front room	Positive	7.5	3.2
158	1/18/2012	14:02	WINDOW trim	WOOD	A	INTACT	WHITE	1185 BURR	SECOND	front room	Positive	10.1	3.9
159	1/18/2012	14:02	BASEBOARD	WOOD	A	INTACT	WHITE	1185 BURR	SECOND	front room	Positive	9.3	1.5
160	1/18/2012	14:04	closet wall	PLASTER	A	INTACT	WHITE	1185 BURR	SECOND	front room	Negative < LOD		0.19
161	1/18/2012	14:04	closet baseboard	WOOD	A	INTACT	WHITE	1185 BURR	SECOND	front room	Positive	9.6	4.3
162	1/18/2012	14:05	closet ceiling	PLASTER	A	INTACT	WHITE	1185 BURR	SECOND	front room	Negative < LOD		0.33
163	1/18/2012	14:06	WALL	WOOD	C	INTACT	TAN	1185 BURR	SECOND	front room	Negative < LOD		0.05
164	1/18/2012	14:06	BASEBOARD	WOOD	C	INTACT	TAN	1185 BURR	SECOND	LIVING ROOM	Negative < LOD		0.07
165	1/18/2012	14:08	CEILING	WOOD		INTACT	WHITE	1185 BURR	SECOND	LIVING ROOM	Negative < LOD		0.11
166	1/18/2012	14:10	closet wall	PLASTER	A	INTACT	black	1185 BURR	SECOND	LIVING ROOM	Negative < LOD		0.1
167	1/18/2012	14:10	closet baseboard	WOOD	A	INTACT	BROWN	1185 BURR	SECOND	LIVING ROOM	Positive < LOD		10.35

168	1/18/2012	14:11	WALL	PLASTER	A	INTACT	WHITE	1185 BURR	SECOND	south room	Negative < LOD	0.03
169	1/18/2012	14:12	CEILING	PLASTER	A	CRACKED	WHITE	1185 BURR	SECOND	south room	Negative < LOD	0.03
170	1/18/2012	14:12	BASEBOARD	WOOD	A	INTACT	WHITE	1185 BURR	SECOND	south room	Positive	3
171	1/18/2012	14:13	WINDOW	WOOD	B	INTACT	WHITE	1185 BURR	SECOND	south room	Positive	2.3
172	1/18/2012	14:13	WINDOW trim	WOOD	B	INTACT	WHITE	1185 BURR	SECOND	south room	Positive	4.8
173	1/18/2012	14:14	DOOR trim	WOOD	D	INTACT	WHITE	1185 BURR	SECOND	south room	Positive	4.4
174	1/18/2012	14:15	WALL	WOOD	D	INTACT	WHITE	1185 BURR	SECOND	south room	Positive	2.5
175	1/18/2012	14:15	DOOR trim	WOOD	A	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Negative < LOD	2.8
176	1/18/2012	14:16	CABINET	WOOD	A	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Negative < LOD	0.17
177	1/18/2012	14:16	CABINET	WOOD	D	INTACT	BROWN	1185 BURR	SECOND	KITCHEN	Negative < LOD	0.06
178	1/18/2012	14:17	CEILING	WOOD	B	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Negative < LOD	0.03
179	1/18/2012	14:17	BASEBOARD	WOOD	B	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Positive	7
180	1/18/2012	14:18	WINDOW	WOOD	B	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Negative < LOD	3
181	1/18/2012	14:18	WINDOW trim	WOOD	B	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Negative < LOD	0.16
182	1/18/2012	14:19	WALL	PLASTER	A	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Positive	7.3
183	1/18/2012	14:20	CEILING	PLASTER	A	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Positive	12.2
184	1/18/2012	14:20	BASEBOARD	WOOD	A	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Positive	8.5
185	1/18/2012	14:20	DOOR	WOOD	D	INTACT	WHITE	1185 BURR	SECOND	KITCHEN	Positive	2.1
186	1/18/2012	14:21	DOOR trim	WOOD	D	INTACT	WHITE	1185 BURR	SECOND	BATHROOM	Negative < LOD	1
187	1/18/2012	14:23	FLOOR	WOOD	D	PEELING	Gray	1185 BURR	SECOND	BATHROOM	Negative < LOD	0.31
188	1/18/2012	14:24	closet door	WOOD	C	INTACT	WHITE	1185 BURR	SECOND	BATHROOM	Positive	3.5
189	1/18/2012	14:25	closet wall	WOOD	C	INTACT	orange	1185 BURR	SECOND	BATHROOM	Negative < LOD	0.08
190	1/18/2012	14:25	closet floor	WOOD	D	INTACT	BROWN	1185 BURR	SECOND	BATHROOM	Negative < LOD	3.3
191	1/18/2012	14:26	WINDOW	WOOD	D	PEELING	gray	1185 BURR	SECOND	back str	Positive	4
192	1/18/2012	14:26	WINDOW trim	WOOD	D	PEELING	gray	1185 BURR	SECOND	back str	Negative < LOD	1.8
193	1/18/2012	14:27	DOOR	METAL	D	INTACT	gray	1185 BURR	SECOND	back str	Negative < LOD	0.1
194	1/18/2012	14:28	DOOR trim	WOOD	D	INTACT	gray	1185 BURR	SECOND	back str	Negative < LOD	0.21
195	1/18/2012	14:30	str. tread	WOOD	D	INTACT	gray	1185 BURR	SECOND	back str	Positive	5.3
196	1/18/2012	14:34	WALL	CONCRETE	B	INTACT	BROWN	1185 BURR	SECOND	back str	Negative < LOD	0.21
197	1/18/2012	14:35	CABINET	WOOD	C	POOR	WHITE	1185 BURR	SECOND	back str	Negative < LOD	0.19
198	1/18/2012	14:36	CABINET	WOOD	C	FAIR	blue	1185 BURR	SECOND	back str	Negative < LOD	0.03
199	1/18/2012	14:37	CEILING	WOOD	C	FAIR	pink	1185 BURR	SECOND	back str	Negative < LOD	0.13
200	1/18/2012	14:39	siding	Vinyl	C	FAIR	BEIGE	1185 BURR	SECOND	back str	Positive	4.7
201	1/18/2012	14:40	DOOR	METAL	C	INTACT	BEIGE	1185 BURR	SECOND	back str	Negative	0.8
202	1/18/2012	14:40	DOOR trim	METAL	C	INTACT	WHITE	1185 BURR	SECOND	back str	Negative	0.4
203	1/18/2012	14:41	soffit	METAL	C	POOR	WHITE	1185 BURR	SECOND	back str	Positive	18.8
204	1/18/2012	14:41	foundation	CONCRETE	C	INTACT	WHITE	1185 BURR	SECOND	back str	Negative < LOD	10.2
205	1/18/2012	14:43	DOOR trim	WOOD	A	PEELING	TAN	1185 BURR	SECOND	back str	Positive	0.09
206	1/18/2012	14:43	DOOR	WOOD	A	INTACT	BROWN	1185 BURR	SECOND	OUTSIDE	Positive	4.8
207	1/18/2012	14:43	DOOR	WOOD	A	FAIR	BROWN	1185 BURR	SECOND	OUTSIDE	Negative < LOD	0.03
208	1/18/2012	14:43	DOOR	WOOD	A	FAIR	BROWN	1185 BURR	SECOND	OUTSIDE	Positive	0.03
209	1/18/2012	14:43	DOOR	WOOD	A	FAIR	BROWN	1185 BURR	SECOND	OUTSIDE	Positive	6.9
210	1/18/2012	14:43	DOOR	WOOD	A	FAIR	BROWN	1185 BURR	SECOND	OUTSIDE	Negative < LOD	0.17
211	1/18/2012	14:43	DOOR	WOOD	A	FAIR	BROWN	1185 BURR	SECOND	OUTSIDE	Positive	2.8
212	1/18/2012	14:43	DOOR	WOOD	A	FAIR	BROWN	1185 BURR	SECOND	OUTSIDE	Null	1.2
213	1/18/2012	14:43	DOOR	WOOD	A	FAIR	BROWN	1185 BURR	SECOND	OUTSIDE	Positive	0.4

208	1/18/2012 14:45	WINDOW	WOOD	A	INTACT	WHITE	1185 BURR	OUTSIDE	Null	0.5	0.2
209	1/18/2012 14:45	WINDOW	WOOD	A	INTACT	WHITE	1185 BURR	OUTSIDE	Null	0.6	0.2
210	1/18/2012 14:46	WINDOW	WOOD	A	INTACT	WHITE	1185 BURR	OUTSIDE	Negative < LOD		0.15
211	1/18/2012 14:46	WINDOW troug	METAL	A	INTACT	WHITE	1185 BURR	OUTSIDE	Positive	2.6	1
212	1/18/2012 14:48	overhead door	WOOD	A	POOR	pink	1185 BURR	GARAGE	Negative < LOD		0.03
213	1/18/2012 14:48	DOOR trim	WOOD	A	PEELING	BROWN	1185 BURR	GARAGE	Negative < LOD		0.03
214	1/18/2012 14:49	DOOR trim	WOOD	A	PEELING	BROWN	1185 BURR	GARAGE	Negative < LOD		0.03
215	1/18/2012 14:49	DOOR	METAL	A	INTACT	WHITE	1185 BURR	GARAGE	Negative < LOD		0.03
216	1/18/2012 14:50	WINDOW trim	WOOD	D	PEELING	WHITE	1185 BURR	GARAGE	Negative < LOD		0.04
217	1/18/2012 14:51	cal out					1185 BURR		Positive	1.2	0.1
218	1/18/2012 14:51	cal out					1185 BURR		Positive	1.1	0.1
219	1/18/2012 14:52	cal out					1185 BURR		Positive	1.2	0.1



# Minnesota Department of Health

has authorized

**Angstrom Analytical, Inc.**

**5001 Cedar Lake Rd S**

**St Louis Park, Minnesota 55416**

in accordance with Minnesota Statutes, section 144.9505 and Minnesota Rules, part 4761.2200,  
to practice in the State of Minnesota as a

## Certified Lead Firm

License No: LF127

Expires 12/08/2012

This certificate is nontransferable.

---



**Linda B. Bruemmer, Director**  
**Division of Environmental Health**



**LEAD  
Risk Assessor**

Licensed by:  
State of Minnesota  
Department of Health  
License No. LR1089  
Expires 08/15/2012

Steve E Wallinga  
310 Deerwood Ln N  
Plymouth, MN 55441

*Frank J. Bassner*  
Director, Env. Health Div.



*Frederick J. Bauman*  
Director, Env. Health Div.



**LEAD  
Risk Assessor**

Licensed by:  
State of Minnesota  
Department of Health  
License No. LR2036  
Expires 09/19/2012

**Kevin P Hagen  
7038 Upper 36th St N  
Oakdale, MN 55128**



CITY OF SAINT PAUL  
Christopher B. Coleman, Mayor

375 Jackson Street, Suite 220  
Saint Paul, Minnesota 55101-1806

Telephone: 651-266-8989  
Facsimile: 651-266-9124  
Web: [www.stpaul.org/dsi](http://www.stpaul.org/dsi)

## Code Compliance Report

April 06, 2012

Housing and Redevelopment  
25 W 4th St Ste 1300  
St Paul MN 55102

Re: 1185 Burr St  
File#: 10 608274 VB2

Dear Property Owner:

The following is the Code Compliance report you requested on February 13, 2012.

Please be advised that this report is accurate and correct as of the date April 06, 2012. All deficiencies identified by the City after this date must also be corrected and all codes and ordinances must be complied with. This report is valid for 365 days from April 06, 2012. This report may be used in lieu of a Truth in Housing Report required in St Paul Legislative Code 189. This building must be properly secured and the property maintained at all times.

In order to sell or reoccupy this property the following deficiencies must be corrected:

**BUILDING**                      **Inspector: Jim Seeger**                      **Phone: 651-266-9046**

- Insure basement cellar floor is even, is cleanable, and all holes are filled.
- Install plinth blocks as needed under posts in basement & ensure adequate footing for load imposed.
- Tuck Point interior/exterior of foundation as necessary.
- Dry out basement and eliminate source of moisture.
- Remove mold, mildew and moldy or water damaged materials.
- Permanently secure top and bottom of support posts in an approved manner.
- Install 20 minute fire rated doors, with self closing device, between common areas and individual units. All penetrations required to have property intumescent device or caulk (per current building codes).
- Maintain one hour fire separation between dwelling units and between units and common areas.
- Install handrails (34 inches - 38 inches above each nosing) and guardrails (36 inch minimum) at all stairways, and return hand rail ends into a newel post or wall per attachment.
- Repair or Replace any deteriorated window sash, broken glass, sash holders, re-putty, etc as necessary.
- Provide functional hardware at all doors and windows

Re: 1185 Burr St

April 6, 2012

Page 2

**BUILDING**

**Inspector: Jim Seeger**

**Phone: 651-266-9046**

- Provide complete storms and screens, in good repair for all door and window openings.
- Exit doors shall be capable of being opened from the inside, easily and without the use of a key. Remove all surface bolts.
- Repair or replace damaged doors and frames as necessary, including storm doors.
- Weather seal exterior doors, threshold and weather-stripping.
- Install floor covering in bathroom and kitchen that is impervious to water.
- Repair walls, ceiling and floors throughout, as necessary.
- Prepare and paint interior and exterior as necessary. Observe necessary abatement procedures (EPA, MPCA and St. Paul Legislative Code, Chapter 34 for additional information) if lead base paint is present.
- Any framing members that required repair or do not meet code (where wall and ceiling covering is removed, members that are over-spanned, over-spaced, not being carried properly, door and window openings that are not adequately supported, etc.) are to be reconstructed in an approved manner.
- Air-seal and insulate attic/access door.
- Install Smoke Detectors/Carbon Monoxide Detectors per MN Conservation Code and the MN Dept. of Labor and Industry: Install per code where feasible.
- Provide major clean-up of premises.
- Repair siding, soffit, fascia, trim, etc. as necessary.
- Provide proper drainage around house to direct water away from foundation of house.
- Provide proper drainage around house to direct water away from foundation of garage.
- Install downspouts and a complete gutter system on house and garage.
- Install rain leaders to direct drainage away from foundation.
- Install flashing in an approved manner at the intersection of the roof with walls, chimneys, and other conjoined surfaces.
- Provide general rehabilitation of garage.
- Review all applicable codes & policies when replacing windows including egress windows for sleeping rooms.
- Remove trees which are against foundation of home and garage.
- Grade must drain away from foundation of dwelling. Maintain 6 inch clearance between wood and soil.
- Replace all exterior window trim and properly install weather barrier and flashing to code. Call for inspection before covering.
- Replace over head garage door and service door.
- Install 1 hour fire rated wall at west and south garage walls.
- Properly repair basement windows and install window wells as needed.
- Remove suspended ceiling on first floor and insure 1 hour fire rated assembly between units.
- Replace cut off joist at rear of basement by plumbing stack about 3 joist.
- Remove all walls and ceiling coverings from basement and replace all decayed post and beams. Install footings where needed.
- Remove old heating plant and old fuel oil barrel.

Re: 1185 Burr St  
April 6, 2012  
Page 3

**BUILDING**      **Inspector: Jim Seeger**      **Phone: 651-266-9046**

- Repair foundation at northwest side water coming in building.
- Install tempered glass in window over first floor bathtub and in window on rear stairs to second floor.
- Remove water damaged dry wall from garage.
- A building permit is required to correct the above deficiencies.

**ELECTRICAL**      **Inspector: Dan Moynihan**      **Phone: 651-266-9036**

- Ground the electrical service to the water service with a copper conductor within 5 feet of the entrance point of the water service
- Bond around water meter with a copper wire sized for the electrical service per Article 250 of the NEC
- Provide a complete circuit directory at service panel indicating location and use of all circuits
- Close openings in service panel/junction boxes with knockout seals, breaker blanks, and/or junction box covers
- Properly strap cables and conduits in basement conduit on the exterior of the house.
- Install/replace GFCI receptacle in first and second floor bathroom adjacent to the sink
- Ground bathroom light in first and second floor bathroom and disconnect receptacle on fixture
- Install globe-type enclosed light fixture on all closet lights
- Repair or Replace all broken, missing or loose light fixtures, switches and outlets, covers and plates
- Check all outlets for proper polarity and verify ground on 3-prong outlets. No power at time of inspection.
- Install hard-wired, battery backup smoke detector per bulletin 80-1 and other smoke detectors as required by the IRC. Also, Install carbon monoxide detector(s) within 10 feet of all bedrooms
- Install exterior lights at front/side/back entry doors
- Remove and or/ re-wire all illegal, improper or hazardous wiring in basement/garage. Remove illegal sub panel.
- Replace all moisture damaged electrical in basement.
- Remove or rewire first floor south bedroom closet light.
- Add a receptacle in first floor living room ARC Fault.
- Based on repair list purchase permit for 10 circuits.
- All added receptacles must be grounded, tamper-resistant and be on an Arc-Fault Circuit Interrupter-protected circuit.
- Any open walls or walls that are opened as part of this project must be wired to the standards of the current NEC.
- All buildings on the property must meet the St. Paul Property Maintenance Code (Bulletin 80-1).
- All electrical work must be done by a Minnesota-licensed electrical contractor under an electrical permit.



Re: 1185 Burr St  
April 6, 2012  
Page 4

**PLUMBING**      **Inspector: Rick Jacobs**      **Phone: 651-266-9054**

- Basement - Water Heater - No gas shut off or gas piping incorrect (IFGC 402.1)
- Basement - Water Heater - T and P relief discharge piping incorrect (MPC 2210 Subp. 4)
- Basement - Water Heater - Vent must be in chimney liner (IFGC 501.12)
- Basement - Water Heater - Water piping incorrect (MPC 1730 Subp. 1)
- Basement - Water Heater - gas venting incorrect (IFGC 503)
- Basement - Water Heater - not fired or in service (MPC 2180)
- Basement - Water Meter - meter needs repair or is broken
- Basement - Water Meter - raise meter to a minimum 12 inches above floor (MPC 2280)
- Basement - Water Meter - remove meter from pit (MPC 88.08)
- Basement - Water Meter - service valves not functional or correct (MPC 1800 Subp 3,4)
- Basement - Water Meter - support meter properly (MPC 2280)
- Basement - Water Piping - improper fittings or usage (MPC 0420)
- Basement - Water Piping - improper piping or usage (MPC 0520)
- Basement - Water Piping - provide water piping to all fixtures and appliances (MPC 1700)
- Basement - Water Piping - repair or replace all corroded, broken or leaking piping (MPC 4715.1720) Also replace missing water piping to code.
- Basement - Water Piping - run 1 inch water line from meter to first major take off (SPRWS Water Code)
- Basement - Gas Piping - dryer gas shutoff; connector or piping incorrect (IFGC 402.1)
- Basement - Gas Piping - replace improper piping or fittings (IFGC 406.1.2) Also remove any unused gas piping to the main and cap or plug properly.
- Basement - Gas Piping - run dryer vent to code (IFGC 613.1 - IMC 604.1)
- Basement - Soil and Waste Piping - improper pipe supports (MPC 1430 Subp. 4)
- Basement - Soil and Waste Piping - no front sewer clean out (MPC 1000)
- Basement - Laundry Tub - faucet is missing, broken or parts missing (MPC 0200. P.)
- Basement - Laundry Tub - waste incorrect (MPC 2300)
- Basement - Laundry Tub - water piping incorrect (MPC 0200 P.)
- First Floor - Lavatory - waste incorrect (MPC 2300)
- First Floor - Sink - waste incorrect (MPC 2300)
- First Floor - Toilet Facilities - incorrectly vented (MPC 2500)
- First Floor - Tub and Shower - faucet incorrect air gap (MPC 0200. P.)
- First Floor - Tub and Shower - provide anti-scald valve (MPC 1380. Subp. 5)
- First Floor - Tub and Shower - provide stopper (MPC 1240)
- Second Floor - Gas Piping - range gas shut off; connector or piping incorrect (IFGC 411 1.3.3)
- Second Floor - Gas Piping - replace improper piping or fittings (IFGC 406.1.2)
- Second Floor - Sink - faucet is missing, broken or parts missing (MPC 0200.P.)
- Second Floor - Sink - waste incorrect (MPC 2300)
- Second Floor - Sink - water piping incorrect (MPC 0200 P.)
- Second Floor - Tub and Shower - Provide access (MPC 0900)
- Second Floor - Tub and Shower - provide stopper (MPC 1240)
- Second Floor - Tub and Shower - replace waste and overflow (MPC 1240)
- Exterior - Lawn Hydrants - none found at time of inspection

Re: 1185 Burr St  
April 6, 2012  
Page 5

**PLUMBING**      **Inspector: Rick Jacobs**      **Phone: 651-266-9054**

- Comments: - Need permits for first floor bathroom fixtures that were added without permits or inspections. After permits are received, provide access for proper inspections. Verify the proper venting of the second floor fixtures.
- Obtain plumbing permits prior to commencement of work.

**HEATING**      **Inspector: Maureen Hanson**      **Phone: 651-266-9043**

- Install approved level handle manual gas shutoff valve on furnace and remove unapproved valve
- Clean and Orsat test both furnace burners. Check all controls for proper operation. Check furnace heat exchangers for leak; provide documentation from a licensed contractor that the heating units are safe
- Replace furnace flue venting to code
- Provide adequate clearance from flue vent pipe on furnace to combustible materials or provide approved shielding according to code
- Vent clothes dryer to code
- Provide adequate combustion air and support duct to code
- Provide support for gas lines to code
- Plug, cap and/or remove all disconnected gas lines
- Provide a window in the bathrooms with an aggregate glazing area of not less than 3 square feet, one-half of which must be openable or provide exhaust system vented to outside. A mechanical ventilation permit is required if an exhaust system is installed.
- All supply and return ducts for warm air heating system must be clean before final approval for occupancy. Provide access for inspection of inside of ducts or provide documentation from a licensed duct-cleaning contractor that the duct system has been cleaned.
- Repair and/or replace heating registers as necessary
- Provide heat in every habitable room and bathrooms
- Remove abandoned furnace from basement.
- A forced warm air heating system may only serve one dwelling unit - dwelling separation required.
- Undercut doors one inch above finished floor to rooms without ducted return air.
- Mechanical gas and warm air permits are required for the above work.

**ZONING**

1. This property is in a(n) R4 zoning district.
2. This property was inspected as a Single Family Dwelling.

**Notes:**

- See attachment for permit requirements and appeals procedure.
- Most of the roof covering could not be inspected from grade. Recommend this be done before rehabilitation is attempted.

Re: 1185 Burr St  
April 6, 2012  
Page 6

**This is a registered vacant building. In order to sell or reoccupy this building, all deficiencies listed on this code compliance report must be corrected in accordance with the Minimum Housing Standards of the St. Paul Legislative Code (Chapter 34) and all required permits must receive final approval within six (6) months of the date of this report. One (1) six-month time extension may be requested by the owner and will be considered if it can be shown that the code compliance work is proceeding and is more than fifty (50) percent complete in accordance with Legislative Code Section 33.03(f).**

You may file an appeal to this notice by contacting the City Clerk's Office at 651-266-8688. Any appeal must be made in writing within 10 days of this notice. (You must submit a copy of this notice when you appeal, and pay a filing fee.)

If you have any questions regarding this inspection report, please contact Jim Seeger between 7:30 - 9:00 AM at 651-266-9046 or leave a voice mail message.

Sincerely,

James L. Seeger  
Code Compliance Officer  
Department of Safety and Inspections  
City of Saint Paul  
375 Jackson Street, Suite 220  
Saint Paul MN 55101  
Phone: 651-266-9046  
Email: james.seeger@ci.stpaul.mn.us

JLS:ml  
Attachments

# Home Energy Rating Certificate

1185 Burr St  
St Paul, MN 55106



**3 Stars  
Confirmed**

## Uniform Energy Rating System

1 Star	1 Star Plus	2 Stars	2 Stars Plus	3 Stars	3 Stars Plus	4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
500-401	400-301	300-251	250-201	200-151	150-101	100-91	90-86	85-71	70 or Less

HERS Index: **165**

## General Information

Conditioned Area: 2856 sq. ft.  
Conditioned Volume: 24108 cubic ft.  
Bedrooms: 3  
House Type: Single-family detached  
Foundation: Conditioned basement

## Mechanical Systems Features

Heating: Fuel-fired air distribution, Natural gas, 80.0 AFUE.  
Water Heating: Conventional, Natural gas, 0.52 EF, 40.0 Gal.

Duct Leakage to Outside: RESNET/HERS default  
Ventilation System: None  
Programmable Thermostat: Heating: No Cooling: No

## Building Shell Features

Ceiling Flat: R-11  
Vaulted Ceiling: NA  
Above Grade Walls: R-0  
Foundation Walls: R-0.0  
Slab: R-0.0 Edge, R-0.0 Under  
Exposed Floor: NA  
Window Type: S W Op (w/St)  
Infiltration: Rate: Htg: 4/785 Cjg: 4/785 CFM50  
Method: Blower door test

## Lights and Appliance Features

Percent Interior Lighting: 0.00  
Percent Garage Lighting: 0.00  
Refrigerator (kWh/yr): 691.00  
Dishwasher Energy Factor: 0.46  
Range/Oven Fuel: Natural gas  
Clothes Dryer Fuel: Natural gas  
Clothes Dryer EF: 2.67  
Ceiling Fan (cfm/Watt): 0.00

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

**REM/Rate - Residential Energy Analysis and Rating Software v12.98**

This information does not constitute any warranty of energy cost or savings.

© 1985-2012 Architectural Energy Corporation, Boulder, Colorado.

Registry ID:

Rating Number:

Certified Energy Rater: Michael Childs

Rating Date: 4/30/2012

Rating Ordered For: City of Saint Paul

## Estimated Annual Energy Cost

Use	Confirmed	MMBtu	Cost	Percent
Heating	327.5	\$3041	73%	
Cooling	0	\$0	0%	
Hot Water	23.5	\$212	5%	
Lights/Appliances	31.6	\$724	17%	
Photovoltaics	-0.0	\$-0	-0%	
Service Charges		\$180	4%	
Total		\$4157	100%	

This home meets or exceeds the minimum criteria for all of the following:

## TITLE

## Company

## Address

## City, State, Zip

## Phone #

## Fax #



# Home Energy Rating Certificate

1185 Burr St  
St Paul, MN 55106



**5 Stars Plus  
Confirmed**

## Uniform Energy Rating System

1 Star	1 Star Plus	2 Stars	2 Stars Plus	3 Stars	3 Stars Plus	4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
500-401	400-301	300-251	250-201	200-151	150-101	100-91	90-86	85-71	70 or Less

HERS Index: **70**

## General Information

Conditioned Area: 2856 sq. ft.

Conditioned Volume: 24108 cubic ft.

Bedrooms: 3

## Energy Efficient

4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
100-91	90-86	85-71	70 or Less

House Type: Single-family detached

Foundation: Conditioned basement

## Mechanical Systems Features

Heating: Fuel-fired hydronic distribution, Natural gas, 95.0 AFUE.

Cooling: Air conditioner, Electric, 16.0 SEER.

Water Heating: Conventional, Natural gas, 0.67 EF, 40.0 Gal.

Duct Leakage to Outside: RESNET/HERS default

Ventilation System: Exhaust Only: 60 cfm, 13.0 watts.

Programmable Thermostat: Heating: Yes Cooling: Yes

## Building Shell Features

Ceiling Flat: R-50

Vaulted Ceiling: NA

Above Grade Walls: R-13

Foundation Walls: R-0.0

Slab: R-0.0 Edge, R-0.0 Under

Exposed Floor: NA

Window Type: NFRC .32 / .32

## Infiltration:

Rate: Htg: 2485 Cfg: 2485 CFM50

Method: Blower door test

## Lights and Appliance Features

Percent Interior Lighting: 90.00

Percent Garage Lighting: 0.00

Refrigerator (kWh/yr): 691.00

Dishwasher Energy Factor: 0.46

Range/Oven Fuel: Natural gas

Clothes Dryer Fuel: Natural gas

Clothes Dryer EF: 2.67

Ceiling Fan (cfm/Watt): 0.00

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

**REM/Rate - Residential Energy Analysis and Rating Software v12.98**

This information does not constitute any warranty of energy cost or savings.

© 1985-2012 Architectural Energy Corporation, Boulder, Colorado.

Registry ID:

Rating Number:

Certified Energy Rater: Michael Childs

Rating Date: 4/30/2012

Rating Ordered For: City of Saint Paul

## Estimated Annual Energy Cost

Use	Confirmed	MMBtu	Cost	Percent
Heating		115.5	\$1046	51%
Cooling		1.6	\$48	2%
Hot-Water		18.8	\$169	8%
Lights/Appliances		27.1	\$606	30%
Photovoltaics		-0.0	\$-0	-0%
Service Charges			\$180	9%
<b>Total</b>			<b>\$2049</b>	<b>100%</b>

This home meets or exceeds the minimum criteria for all of the following:

## TITLE

Company

Address

City, State, Zip

Phone #

Fax #

# Home Energy Rating Certificate

1185 Burr St  
St Paul, MN 55106



**3 Stars  
Confirmed**

## Uniform Energy Rating System

1 Star	1 Star Plus	2 Stars	2 Stars Plus	3 Stars	3 Stars Plus	4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
500-401	400-301	300-251	250-201	200-151	150-101	100-91	90-86	85-71	70 or Less

HERS Index: **165**

## General Information

Conditioned Area: 2856 sq. ft.

Conditioned Volume: 24108 cubic ft.

Bedrooms: 3

## Energy Efficient

4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
100-91	90-86	85-71	70 or Less

House Type: Single-family detached  
Foundation: Conditioned basement

## Mechanical Systems Features

Heating: Fuel-fired air distribution, Natural gas, 80.0 AFUE.  
Water Heating: Conventional, Natural gas, 0.52 EF, 40.0 Gal.

Duct Leakage to Outside: RESNET/HERS default

Ventilation System: None

Programmable Thermostat: Heating: No Cooling: No

## Building Shell Features

Ceiling Flat: R-11 Exposed Floor: NA  
Vaulted Ceiling: NA Window Type: S W Op (w/St)  
Above Grade Walls: R-0 Infiltration:  
Foundation Walls: R-0.0 Rate: Htg: 4785 Ctg: 4785 CFM50  
Slab: R-0.0 Edge, R-0.0 Under Method: Blower door test

## Lights and Appliance Features

Percent Interior Lighting: 0.00 Range/Oven Fuel: Natural gas  
Percent Garage Lighting: 0.00 Clothes Dryer Fuel: Natural gas  
Refrigerator (kWh/yr): 691.00 Clothes Dryer EF: 2.67  
Dishwasher Energy Factor: 0.46 Ceiling Fan (cfm/Watt): 0.00

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

**REM/Rate - Residential Energy Analysis and Rating Software v12.98**

This information does not constitute any warranty of energy cost or savings.

© 1985-2012 Architectural Energy Corporation, Boulder, Colorado.

Registry ID:  
Rating Number:

Certified Energy Rater: Michael Childs

Rating Date: 4/30/2012

Rating Ordered For: City of Saint Paul

## Estimated Annual Energy Cost

Use	Confirmed MMBtu	Cost	Percent
Heating	327.5	\$3041	73%
Cooling	0	\$0	0%
Hot Water	23.5	\$212	5%
Lights/Appliances	31.6	\$724	17%
Photovoltaics	-0.0	\$-0	-0%
Service Charges		\$180	4%
<b>Total</b>		<b>\$4157</b>	<b>100%</b>

This home meets or exceeds the minimum  
criteria for all of the following:

TITLE

Company

Address

City, State, Zip

Phone #

Fax #